Application No. 10/558,277 Response to Office Action of October 23, 2009

# AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

- 1. (Canceled)
- 2. (Currently Amended) A method for evaluating a <u>neurological</u>, <u>psychiatric or mood</u> disease or disorder of a subject, which method comprises comparing (i) an expression profile of surrogate cells from the subject with (ii) an <u>normal</u> expression profile of surrogate cells from a normal subject or subjects, wherein a difference between the expression profiles in (i) and (ii) is indicative of <u>said neurological</u>, <u>psychiatric or mood</u> the <u>disease</u> or disorder of the subject <del>under investigation</del>.
  - 3-5. (Canceled)
  - 6. (Original) The method according to claim 2, wherein the subject is a human.
- (Original) The method according to claim 2, wherein the surrogate cells are peripheral blood leukocytes.
- 8. (Original) The method according to claim 7 wherein the peripheral blood leukocytes are selected from the group consisting of monocytes, macrophages, lymphocytes, granulocytes, neutrophils, basophils, and eosinophils, or other white blood cell types or subtypes.
  - 9-11. (Canceled)
- 12. (Currently Amended) The method according to claim 2, wherein the disease or disorder is the presence of a neurological disorder.
- (Currently Amended) The method according to claim 12, wherein the neurological disorder is a neurodegenerative disease or Alzheimer's disease.
  - 14. (Canceled)

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15. (Currently Amended) The method according to claim 2, wherein the <u>disease or</u> disorder is a psychiatric disorder or a mood disorder.

16. (Currently Amended) The method according to claim 15, wherein the <u>psychiatric or mood</u> disorder is selected from the group consisting of schizophrenia, bipolar disorder and major depression.

17-24. (Canceled)

25. (Previously Presented) The method according to claim 2, wherein evaluating the disease or disorder is selected from the group consisting of classifying the disease or disorder, diagnosing the presence of a disease or disorder, determining the prognosis of the subject, monitoring a therapy, selecting a therapy, and assessment of susceptibility for the disease or disorder.

26-38. (Canceled)

 (Original) The method according to claim 2, which comprises obtaining an expression profile on a nucleic acid microarray.

40. (Previously Presented) The method according to claim 39, wherein the microarray is an oligonucleotide microarray or a cDNA microarray.

41. (Canceled)

42. (Original) The method according to claim 2, which comprises obtaining an expression profile with reverse transcriptase-polymerase chain reaction (RT-PCR).

43-44. (Canceled)

45. (Currently Amended) A method for evaluating a treatment or therapy of a neurological, psychiatric or mood disease or disorder in a subject, which method comprises comparing (i) an expression profile of surrogate cells from the subject after the treatment or therapy with (ii) an expression profile of surrogate cells from the subject prior to treatment or therapy, wherein a Application No. 10/558,277 Response to Office Action of October 23, 2009

difference in the expression profiles in (i) and (ii) indicates an effect of the treatment or therapy on the neurological, psychiatric or mood disease or disorder in the subject.

- 46. (Previously Presented) The method according to claim 45, whereby the treatment is exposure to a candidate therapeutic compound.
- 47. (Currently Amended) A method for evaluating a treatment or therapy of a neurological, psychiatric or mood disease or disorder in a subject, which method comprises comparing (i) an the expression profile of the subject after exposing the subject to the treatment or therapy with (ii) a normal expression profile of surrogate cells from a normal subject or subjects, wherein a similarity of the expression profiles in (i) and (ii) is indicative of a therapeutic benefit of the treatment or therapy on the neurological, psychiatric or mood disease or disorder in the subject.
- 48. (Previously Presented) The method according to claim 47, whereby the treatment is exposure to a candidate therapeutic compound.
- 49. (Currently Amended) A method for evaluating a treatment or therapy of a neurological, psychiatric or mood disease or disorder in a subject, which method comprises comparing (i) an the expression profile of the subject after exposing the subject to the treatment or therapy with (ii) an expression profile of surrogate cells from other subjects with the same physical state prior to exposure to different therapies, wherein a similarity of the expression profiles in (i) and (ii) is indicative of low treatment or therapy benefit on the neurological, psychiatric or mood disease or disorder in the subject.
- (Previously Presented) The method according to claim 49, whereby the treatment is exposure to a candidate therapeutic compound.
  - 51-54 (Canceled)
- 55. (Withdrawn, Currently Amended) A method for predicting a response to treatment or therapy of a neurological, psychiatric or mood disease or disorder in a subject, which method comprises comparing (i) an expression profile of nucleic acids from surrogate cells from the subject

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prior to exposing the subject to a treatment or therapy, with (ii) an expression profile of nucleic acids from surrogate cells from other subjects with the same physical state prior to exposure to different therapies, wherein a similarity in the expression profiles in (i) and (ii) predicts an effect of the treatment or therapy on the neurological, psychiatric or mood disease or disorder in the subject based on the effect of that therapy on another subject or subjects having a similar expression profile.

56. (Withdrawn, Currently Amended) A method for choice of treatment or therapy for a neurological, psychiatric or mood disease or disorder in a subject, which method comprises comparing (i) an expression profile of nucleic acids from surrogate cells from the subject prior to exposing the subject to a treatment or therapy with (ii) an expression profile of nucleic acids from surrogate cells from other subjects with the same physical state prior to exposure to different treatment or therapies, wherein a similarity in the expression profiles in (i) and (ii) predicts an effect of the treatment or therapy on the neurological, psychiatric or mood disease or disorder in the subject based on the effect of that therapy on another subject or subjects having a similar expression profile.

#### 57-63. (Canceled)

64. (Currently Amended) A method for identifying a nucleic acid containing a sequence alteration that results in and/or contributes to a <u>neurological</u>, <u>psychiatric or mood</u> disease or disorder, and/or results in and/or contributes to susceptibility for a <u>neurological</u>, <u>psychiatric or mood</u> disease or disorder, which method comprises (a) <u>using the method of claim 2 to</u> selecting a nucleic acid that has altered expression in a surrogate cell from a subject with the disease or disorder, when compared to a surrogate cell from a normal subject or subjects; and (b) comparing the sequence of the nucleic acid, including the entire transcribed region, plus upstream and downstream controlling elements, from the subject with <u>the</u> disease or disorder and the normal subject or subjects, wherein a sequence difference indicates that the nucleic acid sequence results in and/or contributes to a-the disease or disorder, and/or results in <u>and/or</u> contributes to susceptibility for e-the disease or disorder.

65. (Original) The method of claim 64, wherein the nucleic acid is adjacent to, near to, or within, a region of genetic linkage to the physical state.

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### 66-77. (Canceled)

- (Currently Amended) The method according to claim 64, wherein the <u>disease or</u> disorder is a psychiatric or a mood disorder.
- 79. (Currently Amended) The method according to claim 78, wherein the <u>psychiatric or mood</u> disorder is selected from the group consisting of schizophrenia, bipolar disorder and major depression.

### 80-84. (Canceled)

- 85. (Currently Amended) A method for diagnosing a <u>neurological</u>, <u>psychiatric or mood</u> disease or disorder in a subject by the detection of a nucleic acid alteration in said subject, wherein the nucleic acid alteration is identified using the method of claim 64.
- 86. (Currently Amended) A method for determining the prognosis of a subject having a <u>neurological, psychiatric or mood</u> disease or disorder by the detection of a nucleic acid alteration in said subject, wherein the nucleic acid alteration is identified using the method of claim 64.

### 87. (Canceled)

88. (Currently Amended) A method for determining the susceptibility of a subject for developing a <u>neurological</u>, <u>psychiatric or mood</u> disease or disorder by the detection of a nucleic acid alteration in said subject, wherein the nucleic acid alteration is identified using the method of claim 64.

## 89. (Canceled)

90. (Withdrawn, Currently Amended) A method for developing therapeutic compounds to be administered to a subject with a <u>neurological</u>, <u>psychiatric or mood</u> disease or disorder resulting from and/or contributed to, by a nucleic acid sequence alteration identified by the method of claim 64, whereby the therapeutic compounds are designed to normalize the function or expression of the altered nucleic sequence.

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91-92. (Canceled)

93. (Withdrawn, Currently Amended) A method for treating a patient suffering from a neurological, psychiatric or mood disease or a disorder resulting from and/or contributed to, by a nucleic acid sequence alteration that had been previously identified using the method of claim 64, comprising administering to a patient in need of such treatment therapeutically effective amounts of a normal counterpart of the nucleic acid sequence.

94-96. (Canceled)

97. (Withdrawn, Currently Amended) A method for treating a subject with a <u>neurological</u>, <u>psychiatric or mood</u> disease or disorder resulting from and/or contributed to, by an altered expression level of a nucleic acid identified to have altered expression using the method of claim 2, comprising administering to a subject in need of such treatment therapeutically effective amounts of the nucleic acid or therapeutically effective amounts of inhibitory nucleic acid sequence specific for the nucleic acid.

98-103. (Canceled)

- 104. (Withdrawn, Currently Amended) A method for developing therapeutic compounds for a neurological, psychiatric or mood disease or disorder resulting from and/or contributed to, by an altered expression level of a nucleic acid identified to have altered expression using the method of claim 2, whereby the therapy is designed to normalize the function or expression of the nucleic sequence.
- 105. (New) The method according to claim 13, wherein the neurodegenerative disease is Alzheimer's disease.
- 106. (New) A method for evaluating a neurological, psychiatric or mood disease or disorder in a subject, which method comprises
  - (a) obtaining an expression profile of surrogate cells from the subject;

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- (b) obtaining an expression profile of surrogate cells from a normal subject or subjects;
- (c) comparing the expression profiles in (a) and (b), and
- (d) identifying the subject as having the neurological, psychiatric or mood disease or disorder based on the difference between the expression profiles in (a) and (b).